

To anticipate a claim, a reference must teach every element of the claim. "A claim is anticipated only if each and every element set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Thus, all claim elements, and their limitations, must be found in the prior art reference to maintain a rejection based on 35 U.S.C. §102. Applicant respectfully submits that Timbs does not teach every element of claim 1, and thus fails to anticipate claim 1.

The Applicant sets forth in independent claim 1 as amended, a broadband cellular network device including a base station control unit adapted to control distribution of asynchronous transfer mode cellular traffic consisting of asynchronous transfer mode cells. The device also includes an asynchronous transfer mode controller, separate from said base station control unit, connected to and controlled by the base station control unit. The device also includes an asynchronous transfer mode switching means connected to and being controlled by the asynchronous transfer mode controller and adapted to switch asynchronous transfer mode cellular traffic. The asynchronous transfer mode controller is arranged to function between the base station control unit and the asynchronous transfer mode switching means and is arranged to provide an interface for converting commands of a first communication protocol issued by the base station controller unit into commands of a second communication protocol causing switching actions and is arranged to provide an

interface for issuing commands for connecting and disconnecting traffic channels passing through the asynchronous transfer mode switching means.

First, in a effort to more clearly elucidate the Applicants' claimed invention, the Applicants point to page 8, lines 21-29 of the instant specification, where the Applicants set forth that, "The ATM controller 2 is connected to the ATM switch 3 and thereby provides an interface for the BSC unit 1 to issue commands for connecting or disconnecting traffic channels passing through the ATM switch 3. In addition, the ATM controller 2 also provides suitable commands for the ATM switch 3 in order to enable hardware thereof to establish the required connections and may include specific original equipment manufacturers' (OEM) adaptations required to have the ATM switch work properly." The Applicants expectation here is education and illumination of the instant application's meaning of the word command.

The Applicants strongly disagree with the characterization in the Office Action that a command is a mere format of some sort. According to the Office Action, Timbs teaches converting commands of a first communication protocol issued by the base station control unit into commands of a second communications protocol causing switching actions at col. 1, lines 10-14 and col. 8, lines 59-67 and col. 13, lines 38-43.

Timbs is different than the Applicants' claimed invention. In the citation of column 1, Timbs discloses packets being converted into cells. In the citation of column 8, Timbs discloses the BSC performing an interface with the MSC for radio resource management, channel allocation and coordination of radio resources for origination, termination and handoffs of calls. In the citation of column 13, Timbs

discloses that the transcoder can perform a format conversion both of the voice data digital encoding format from CDMA for the wireless radio to PCM for the PTSN.

Timbs is different from the Applicants' claimed invention because converting commands as set forth by the Applicants' claimed invention is different from converting packets into cells as disclosed in Timbs because packets and cells are signal components whereas commands are operation components.

Further, Timbs is different from the Applicants' claimed invention because converting commands as set forth by the Applicants' claimed invention is different from performing an interface for radio resource coordination and management, and channel allocation because merely performing a normally designated operation is different from converting a command to perform an operation.

Additionally, Timbs is different from the Applicants' claimed invention because converting commands as set forth by the Applicants' claimed invention is different from performing a format conversion from CDMA for the wireless radio to PCM for the PTSN. Moreover, a transcoder needed to perform format conversion is different from an asynchronous transfer mode controller for converting commands that cause switching functions of an ATM switch.

The Applicants respectfully submit that the meaning of command as set forth in the instant specification has been perverted in the Office Action in an attempt to force Timbs to "read" on the Applicants' claimed invention.

Timbs also discloses maintaining compatibility with both cell and circuit based transmission formats. Timbs is different than the Applicants' claimed invention because Timbs is merely directed toward maintaining compatibility between circuit

based interfaces BSC toward MSC and between ATM base interfaces of BSC toward BTS (base transceiver stations) whereas the Applicants set forth an asynchronous transfer mode controller being arranged to function between the base station control unit and the asynchronous transfer mode switching means. Timbs is functionally located in a different location in the telecommunication hierarchy of the system and therefore is improperly stationed to perform the functions set forth in the Applicants' claimed invention.

Timbs discloses a path connection manager that interacts with an ATM switch via ATM routing control protocol (col. 8, lines 45-49) and in Fig. 1B clearly shows the path connection manager 105 to be an integral part of the BSC. Timbs is different from the Applicants' claimed invention because Timbs discloses a path control manager 105 integral with the BSC whereas the Applicants set forth an ATM controller that is separate from the BSC.

For at least the reasons set forth above, the Applicants respectfully assert that claim 1 is not anticipated by Timbs and is therefore allowable.

Dependent claims 2 and 4, which are dependent from independent claim 1, were also rejected under 35 U.S.C. §102(b) as being unpatentable over Timbs. While Applicants do not acquiesce with the particular rejections to these dependent claims, it is believed that these rejections are moot in view of the remarks made in connection with independent claim 1. These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these claims from the cited references. Therefore, dependent claims 2 and 4 are also in condition for allowance.

In paragraph 4 on page 3 of the Office Action, claims 5 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Timbs and Korpela and in paragraph 5 on page 3, claim 7 was rejected over Timbs and Takase. According to the Office Action Timbs discloses all the limitations of Applicants' claimed invention except having two functional layers and being adapted for general switch management protocol. However, according to the Office Action, Korpela and Takase, respectively disclose the omitted limitations and that it would be obvious to combine the respective disclosures to arrive at the Applicants' claimed invention.

Three criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference, or combination of references, must teach or suggest all the claim limitations. MPEP § 2142. Applicant respectfully traverses the rejection since the prior art fails to disclose all the claim limitations.

Because Timbs, as set forth above, fails to disclose all the limitations of Applicants' independent claim 1, Applicants respectfully assert that rejection of claims 5 and 6 is now moot and should therefore be withdrawn.

In view of the amendments and reasons provided above, it is believed that all pending claims are in condition for allowance. Applicant respectfully requests favorable reconsideration and early allowance of all pending claims.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's attorney of record, Michael B. Lasky at 952-253-4106.

Respectfully submitted,

Altera Law Group, LLC



Date:

12 November 2002

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MBL/ftf/jsa

**Appendix A**  
**Marked Up Version of the Entire Claim Set**

The entire set of pending claims is provided for the Examiner's convenience.

Please amend the claims as follows.

1. (Amended Three Times) A broadband cellular network device, comprising:  
a base station control unit adapted to control [ the ] distribution of asynchronous transfer mode cellular traffic consisting of asynchronous transfer mode cells,  
an asynchronous transfer mode controller, separate from said base station control unit, connected to and being controlled by said base station control unit, and  
an asynchronous transfer mode switching means connected to and being controlled by said asynchronous transfer mode controller and adapted to switch asynchronous transfer mode cellular traffic, wherein said asynchronous transfer mode controller being arranged to function between the base station control unit and the asynchronous transfer mode switching means and being arranged to provide an interface for converting commands of a first communication protocol issued by the base station controller unit into commands of a second communication protocol causing switching actions and being an interface for issuing commands for connecting and disconnecting traffic channels passing through [ of ] the asynchronous transfer mode switching means.

2. (Unchanged) A device according to claim 1, wherein said base station control unit provides either of a software, hardware or mixed software/hardware implementation of base station controller functions and comprises an asynchronous transfer mode controller instruction means adapted to instruct the asynchronous

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transfer mode controller. 4. (Unchanged) A device according to claim 1, wherein the asynchronous transfer mode controller is adapted to employ asynchronous transfer mode based signalling and to provide control commands for controlling connecting hardware of the asynchronous transfer mode switching means.

5. (Unchanged) Device according to claim 1, wherein the asynchronous transfer mode controller is arranged to comprise at least two functional layers, one of the functional layers being a cellular network related upper layer adapted to perform cellular network related functions, and one of the functional layers being an asynchronous transfer mode related lower layer adapted to perform asynchronous transfer mode switching means related functions.

6. (Unchanged) Device according to claim 5, wherein the lower functional layer of the asynchronous transfer mode controller is arranged to control the switching hardware of the asynchronous transfer mode switching means.

7. (Unchanged) Device according to claim 1, wherein the asynchronous transfer mode controller is adapted to be a General Switch Management Protocol (GSMP) controller, and wherein the asynchronous transfer mode switching means is adapted to support said General Switch Management Protocol.